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**COMMENTS ON APPROVAL AND PROMULGATION OF
AIR QUALITY IMPLEMENTATION PLANS:
PENNSYLVANIA, ONE-HOUR OZONE ATTAINMENT DEMONSTRATION
FOR PHILADELPHIA OZONE NONATTAINMENT AREA**

**FR 64(241): 70428,
DECEMBER 16, 1999**

INTRODUCTION

The Sierra Club believes that achieving human health protection for the millions of people living in the Philadelphia ozone nonattainment area - as quickly as possible - should be the primary goal of the attainment demonstration.

The Pennsylvania Department of Environmental Protection (DEP) has certainly committed to and undertaken the implementation of initial NO_x controls on Pennsylvania's largest sources. We commend the hard work that it has taken to bring the state to this point. We also realize that, in some cases, Pennsylvania's commitment to fulfilling these requirements has been mired down in political considerations and the protests of affected pollution sources.

The Sierra Club believes very strongly that the U.S. Environmental Protection Agency should find for disapproval of the Pennsylvania Department of Environmental Protection (DEP), Bureau of Air Quality (BAQ) submissions of April 1998 and August 1998 for an ozone attainment demonstration for the Philadelphia ozone nonattainment area. The EPA proposed rule states on page 70433 that "... any controls assumed by the State inside the local modeling domain for purposes of the modeled attainment demonstration must be adopted and submitted as part of the State's 1-hour attainment demonstration SIP." The Sierra Club believes that it will be shown that Pennsylvania has not

completed that requirement and that, in fact, several control measures included within this process do not exist or are unjustified.

Additionally, the Sierra Club does not believe that "weight of evidence" (WOE) policy should be used by EPA to justify approval of ozone attainment plans that are borderline or deficient. Philadelphia's demonstration is both.

EPA itself has found numerous deficiencies in the Pennsylvania DEP/BAQ plan which it has outlined as follows:

- an inadequate motor vehicle emissions budget;
- lack of an enforceable commitment to adopt measures needed for attainment ;
- lack of rules submitted for regional NOx reductions;
- lack of a commitment for a mid-course review by December 31, 2003;
- lack of a commitment to revisions to SIP and motor vehicle emissions budget after MOBILE6 is released;
- lack of a third modeling run episode;
- lack of additional emissions reduction measures for NOx determined through the regional process and sufficient to model attainment;
- lack of intrastate measures for emissions reductions in the event that the Ozone Transport Region (OTR) process does not recommend sufficient measures to produce attainment level reductions; and
- lack of commitment to submit revised SIP & motor vehicle emission budget by October 31, 2001 if any control measures affect the motor vehicle emission inventory.

SIERRA CLUB REASONS FOR CONCERN AND DISAPPROVAL OF ATTAINMENT DEMONSTRATION

1. RACT – Reasonably Available Control Technology: EPA's proposed rule on page 70430 requires that the State provide evidence that that applicable control measures have been implemented or are on an expeditious course to being adopted and implemented. RACT requires that technology should have been in place by 1996, yet Pennsylvania still has 300 sources statewide to be permitted specifically for RACT. Large major stationary sources (MSS) already permitted under presumptive RACT (low NOx burners/separate over-fired air) have returned to DEP for case-by-case review with weaker results. Since Philadelphia's severe ozone nonattainment area status requires a MSS to be defined as NOx emitters with a potential to emit 25 tons of NOx or greater, any sources yet to be permitted in Philadelphia's five county ozone nonattainment area will have a significant impact on both past and future emissions reductions.

While EPA requires that that these reductions be implemented as expeditiously as practicable, Pennsylvania has unfortunately shown a failure to implement. While NOx RACT was initially estimated to reduce NOx by 45%, initial implementation showed about a 41% reduction, and these weakening processes have had an unknown effect on the final reduction count.

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Also, EPA has issued guidance requiring that the SIP contain all measures that would contribute to accelerating the attainment of NAAQS, and also requiring that measures included in a SIP be implemented as expeditiously as practicable. (CAA, Sections 172(c)(1), 181 (a).

Additionally, CAA section 172 (c)(1) requires that all "reasonably available control measures" (RACM) be implemented. RACM are required even beyond the RACT applications necessary for an attainment demonstration, and includes any control measure that is economically and technologically feasible in the area.

Subsequently, with RACT implementation changing regularly, I find it difficult for DEP/BAQ to justify its desire to change its Rule Effectiveness (RE) from 80% to the unrealistic 90% compliance.

2. One key element for the attainment demonstration plan is that all measures submitted for, and relied upon in the modeling demonstration by Pennsylvania must be adopted by Pennsylvania. FR 70440, Table 4 indicates that the Ozone Transport Commission (OTC) NOx Memorandum of Understanding (MOU), phase II NOx reductions were included in the local modeling demonstration. Since I serve on the Pennsylvania DEP Air Quality Technical Advisory Committee (AQTAC), I am aware that the implementation language for this portion of the NOx MOU was never included within the authorizing regulation that implemented the NOx allowance and allocation program, over our opposition. Phase II of the NOx MOU would have made NOx reductions of 75% - or whatever more was necessary - to achieve ozone attainment in the twelve northeastern states and the District of Columbia. Since this regulation is modeled within the attainment demonstration, it must be adopted and implemented by Pennsylvania for a valid attainment demonstration. It is not.

Additionally, a consent decree satisfying a lawsuit¹ filed on November 8, 1999 against EPA in U.S. District Court for DC provides that the SIP revisions for attainment demonstration include adopted emission control strategies. The 110 NOx SIP Call strategy was modeled in Pennsylvania's submission. This strategy has been abandoned.

3. FR 70440 under "NOx Reductions Affecting Boundary Conditions" states that *"The Commonwealth of Pennsylvania relied upon the NOx SIP call reductions in the Philadelphia area attainment demonstration plan. Therefore, a crucial element of the attainment demonstration for the Philadelphia area is the adoption and implementation of NOx control consistent with the modeling demonstration."* While a Clean Air Act (CAA) section 110 NOx State Implementation Plan "SIP call" regulation was proposed over a year ago in Pennsylvania, that regulatory language has been supplanted by language mimicking the EPA rule from December 1999, that implemented the CAA section 126 petitions filed by 4 states. These are not equivalent rules. See Appendix A, *Comparisons of NOx Allowances Regulatory Proposals*, DEP/BAQ, January 18, 2000.

¹ NRDC, EDF, Conservation Law Foundation, Clean Air Council, Natural Resources Council of Maine and Sierra Club filed a complaint against EPA on November 8, 1999.

4. AQTAC has asked for, but not yet received an estimate of total NOx emissions reductions that can be expected from these very different regulatory packages. The number of states affected, alone, will change the recovery of upwind, cross-boundary air quality crossing into (and then out of) Pennsylvania. Beyond the number of states where NOx control is applicable, this newest regulatory proposal exempts sources less than 25 MW of electrical generation, and further reduces applicability by assigning a limitation to only those boilers whose generation is sold under contract. NOx allowances are re-allocated only once every 5 years, making it difficult for Pennsylvania to respond to any EPA changes in total State emissions budgets, while the original 110 NOx SIP Call regulatory language would have allocated allowances from our state budget annually after 2005. Flow control within the NOx allowance banking system has been delayed until 2005, one year later than the 110 NOx SIP Call. Controls for both internal combustion engines and cement kilns are excluded. AQTAC members requested at our January 13, 2000 meeting an 'accounting' of the total emission reductions for NOx that we could expect from each proposal; we have not yet received that information. These regulatory packages are not equivalent; the newest proposal - an ANFR January 22, 2000 in the Pennsylvania Bulletin - will not match the pollution reduction punch of the 110 NOx SIP Call.

5. Additionally, there were two ozone stakeholders groups whose public interest and environmental members worked tirelessly to achieve a new measure of additional protection for local communities of Berks and Lehigh counties and the south-central communities of Lancaster, York and Harrisburg. While these communities themselves need and deserve the full measure of protection under the law from NOx and ozone smog exposures, they also contribute some transported air pollutants to the Philadelphia ozone nonattainment area. The final report of the South-central Ozone Stakeholders Group stated, "... the Stakeholders endorse the NOx State Implementation Plan (SIP) Call Rule in its present form ... This level of reduction is crucial if the South-central area is to attain and maintain the National Ambient Air Quality Standard (NAAQS) for ozone." The Stakeholders go on to commit to "... urge DEP to take all necessary steps to support and implement the 22-state NOx SIP Call Rule and an accompanying regional cap and trade program." In recognition that legal challenges could prevent the 110 SIP Call from moving forward, the South-central ozone stakeholders went on to recommend to DEP that "... DEP utilize ... the Section 126 petition process, in an effort to obtain substantially equivalent NOx emission reductions ..." The final report of the South-central Ozone Stakeholders Group, Table V showed a DEP estimate of 41 tpd NOx reduction by 2007 from the NOx SIP Call, and a 39 tpd NOx reduction by 2007 from the PA's Section 126 Petition for these few counties.

The eastern Stakeholders group comprising the three counties of Berks, Lehigh and one other county, followed similar recommendations to those above. Their final report Section II. A. stated, "We endorse the broad, regional emissions reductions called for by the EPA NOx State Implementation Plan Call (NOx SIP Call) to reduce NOx emissions in 22 states and the District of Columbia" and "DEP should continue to take all necessary steps to support the 22-state NOx SIP Call or other efforts to achieve firm commitments by neighboring states to make equitable reductions on a comparable timetable, and should

specifically support a cap and trade program on a broad regional (i.e. multistate) basis." The Final Report, Section III. Three-County Emission Reduction Estimates For Strategies Listed In Recommendation Action, found that DEP expected to reduce NOx by 70.8 tpd by 2007 by use of the 22 state SIP call, in this three county area.

CAM-X modeling of emission reduction strategies done in 1999 (for July 1995) and for the two Ozone Stakeholders Groups discussed above, showed that scenario A with reduction strategies of NOx SIP call, Tier2 vehicle reductions and the Pittsburgh type I/M program made significant inroads into reducing ozone concentrations. July 12, July 13, July 15, July 16, and July 17 all modeled a lack of reaching attainment, even with the 110 NOx SIP Call included. How can we expect that a regulation like that proposed in the ANFR January 22, 2000 in the Pennsylvania Bulletin can achieve the total necessary emissions reductions?

6. The Sierra Club believes that the implementation of the 126 petition from Pennsylvania (ANFR Pa. Bulletin Jan 22, 2000) could be a step in the right direction for the state and for Philadelphia. But this regulation does not go far enough. It is necessary that there be additional mechanisms available that can be triggered in order to reach our common goal of ozone attainment for our most severely affected locale, the five county Philadelphia ozone nonattainment area.

DEP itself makes a case for the need for a federal regulatory action as sweeping as the 22 state NOx SIP call. DEP referenced in their phase II SIP revision for the Philadelphia area attainment demonstration, April 1998, the EPA assessment that *"22 states and the District of Columbia significantly contribute to nonattainment in, or interfere with maintenance by, a downwind state"*. DEP itself puts a premium on the national regulatory actions of EPA. DEP goes on to say (page 5, phase II document) that *"Attainment of the one-hour ozone standard has been impossible due to the transport of ozone and ozone precursors into the area. While local emission reduction programs have substantially improved air quality, at times the area still experiences ozone levels in excess of the standard. Measured ozone air quality data continue to demonstrate that ozone levels entering the area exceed the standard levels. This overwhelming transport makes development of an attainment plan difficult without federal action on the 110 SIP call..."*

7. Yet DEP would interfere with the achievement of ozone attainment in Philadelphia in two ways. First, the newest regulatory package - ANFR Pa. Bulletin Jan 22, 2000 - that tracks the EPA 126 language, includes a provision that would remove one of our back-stays for pollution reduction. A requirement also modeled for Philadelphia ozone attainment, this provision is the second phase of NOx reductions under the NOx MOU. This second phase is that which requires that Pennsylvania, the other eleven northeast states and the District of Columbia further reduce NOx by 75% - or any higher percentage needed to make ozone attainment in the northeast's most severely impacted areas. This provision - while politically less acceptable to the affected Pennsylvania

sources – is absolutely necessary to give Pennsylvania DEP/BAQ the authority to actually reach ozone attainment.

A second regulatory request from several years ago shows a lack of commitment by Pennsylvania DEP to do what is necessary in Pennsylvania's southern and central counties to reduce their transport effects on Philadelphia. This is the October 11, 1995 and October 14, 1998 petitions² to EPA to remove a total of 47 of Pennsylvania's 67 counties from the Ozone Transport Region (OTR). DEP's own evaluation of intrastate transport effects shows that south-central and central counties have a significant impact on Philadelphia, yet Pennsylvania attempts to remove these counties and their polluters from regulatory requirements for ozone reduction. The Sierra Club opposes the removal of any of Pennsylvania's 67 counties from the OTR.

8. EPA has found Pennsylvania's motor vehicle emissions (MVE) budget to be inadequate for conformity purposes. EPA's three reasons for inadequacy are linked to 40 CFR Part 93, section 93.118(e)(4) and are that Pennsylvania needs additional measures to reduce emissions to support attainment, the emissions budgets do not contain all strategies assumed in modeling, and Pennsylvania must reaffirm in writing its commitment to adequate and enforceable emissions reductions. If Pennsylvania may only succeed in its attainment demonstration if it commits in writing to its previously submitted enforceable strategies, then Pennsylvania will be out of attainment since it has no CAA 110 SIP call regulation and it is proposing to remove its NOx MOU regulatory commitment. Additionally, Pennsylvania must add two programs to the MVE budget: the NLEV program in lieu of clean fuel fleets and heavy duty diesel standards. Both of these would be valuable programs for Pennsylvania, and we support the EPA requirement for their addition.

SUMMARY

- Human health protection ASAP is our primary goal;
- Weight of evidence processes should not be used satisfy attainment requirements when modeling clearly shows that the area has not achieved attainment;
- Reasons for concern:
 - RACT & RACM;
 - NOx MOU, phase II is proposed for deletion;
 - No regulatory language equivalent to the 110 NOx SIP call;
 - New regulatory package (ANFR Pa. Bulletin Jan 22, 2000) will achieve far fewer reductions than the original language mimicking the 110 SIP call;
 - No estimates forthcoming from DEP/BAQ on emissions reductions from 110 SIP call versus 126 petition language;

² Letter to EPA from Pennsylvania's Governor Tom Ridge dated October 11, 1995 petitioning for removal of 37 of 67 counties from OTR. Letter to EPA from Pennsylvania's Governor Tom Ridge dated October 14 1998 petitioning for removal of an additional 10 counties from OTR.

- Broad support for 110 SIP call implementation regulation from EPA, DEP, ozone stakeholders, Sierra Club & other environmental groups. Pennsylvania needs a regulation that achieves those kinds of reductions in such a broad-based manner.
- 126 implementation language doesn't do enough;
- SIP is not implemented as expeditiously as practicable;
- There should be additions to the MVE budget; and
- no Pennsylvania counties should be removed from the OTR.

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And finally, the Sierra Club, Pennsylvania Chapter believes that protecting human health, and as quickly as possible, is not only the ultimate goal but the goal of current focus. While PA DEP has made some progress already in reducing NOx and ozone and that they have committed to further NOx reductions in some limited form, these reductions do not provide a real commitment to achieve ozone attainment for Philadelphia by 2005.

We believe that Philadelphia's attainment demonstration can not be approved at this time by EPA.

Thank you for the opportunity to produce comments on this regulatory action.

Nancy F. Parks

*"Smog sends 53,000 people to the hospital, 159,000 to the emergency room and triggers over 6 million asthma attacks each summer in the eastern U.S."*³

³ Clean Air Task Force. "Out of Breathe: Health Effects from Ozone in the Eastern U.S.", press release, October 1999.

Comparison of NO_x Allowances Regulatory Proposals

	Proposed Regulation	Section 126	ANFR Jan 22, 2000
Applicability Electrical Generating Unit	145.4(1) Any unit that served a generator with a nameplate capacity \geq 15 MW	97.4(a)(1) Serve a generator > 25 MW and units pre 1/1/99 sells power under contract or after 1/1/99 sells any power	145.4(a)(1) Same as 126
Non – Electrical Unit	145.4(2) A unit rated \geq 250 MMBtu/hr and not an electrical generator	97.4(a)(2) Any unit rated > 250 MMBtu/hr, some conditions on electric generation	145(a)(2) Same as 126
25 Ton Exemption	Not included	97.4(b) Exempt sources with permit restrictions < 25 tons	145.4(c) Same as 126
Permitting	145.20 – 145.25 Requires permit application and approval	97.20 – 97.25 Requires permit application and approval	145.20 – 145.25 Sections deleted. Chapter 127 permit requirements apply
Budget	145.40 Specific numbers provided for Pennsylvania	97.40 Budgets for each state specified in Appendix C. Preamble discusses calculation method	145.40. Specifies methodology to calculate budget. Use 126 method.
Allocations Timing	145.41 Allocate for 2003 – 2005, then yearly	97.41 Allocate for 2003 – 2007, then in 5 year blocks	145.41. Same as 126
Electrical Generating Unit	145.42(b) 0.15 x heat input	97.42(b)(1) 0.15 x heat input	145.42(b)(1) Same as 126
Heat Input	145.42(a) Average 2 highest years 1995 – 1997	97.42(a) Average 2 highest years 1995 – 1998	145.42(a) Same as 126
Non – Electrical Unit	145.42(c) 0.17 x heat input	97.42(c) 0.17 x heat input	145.42(c) Same as 126
Heat Input	145.42(a) 1995 heat input	97.42(a) 1995 unless Administrator determination, then use 2 year average	145.42(a) Same as 126
New Sources Allocation	145.42 (d) Lower of allowable or 0.15/.17 x heat input	97.42 (d) Lower of allowable or 0.15/.17 x heat input	145.42(d) Same as 126
Timing	145.42(d) Request allowances for up to 5 control periods; First come, first served	97.42(d) Allocate for each control period; All requests receive equal treatment	145.42(d) Same as 126
Set-Aside	145.42(d) 5% for 3 years then 2%	97.42(d) 5% every year	145.42(d) Same as 126

	Proposed Regulation	Section 126	ANFR Jan 22, 2000
New Sources (continued)			
Plan Approval	145.42(d) Plan approval required	97.42(d) State construction permit required	145.42(d) Same as 126
Banking	145.55 Unlimited banking	97.55 Unlimited banking	145.55 Same as 126
Flow Control	145.55 2:1 withdrawal if the regional bank > 10%; starts in 2004	97.54 2:1 withdrawal if region bank > 10%; starts in 2005	145.55 Same as 126
Compliance Supplement Pool	145.55(c) Early reductions; good for 2003, 2004	97.43 Early reductions, good for 2003, 2004	145.43 Same as 126
Roll over of MOU	145.55 (c)(9) Roll over of 2000—2002 allowances	97.43(b) Year 2001 and 2002 allowances applicable	145.43 Same as 126
Amount of Pool	145.55(c)(10) List pool for Pennsylvania	Part 97 Appendix D Lists pool for each state	145.43(c)(3) and 145.100 Lists pool for each state. Same values as 126
Monitoring	145.70—76 Part 75 monitoring, add compliance with Chapter 139	97.70 – 76 Similar to proposed	145.70 – 76 Same as proposed
Compliance	145.2 Definition, November 30	97.2 Same as proposed	145.2 Same as proposed
True-up Date			
Penalties	145.54(d) 3:1 for excess emissions	97.54(d) Same as proposed	145.54(d) Same as proposed
Opt-In	145.80 – 145.88	97.80 – 97.88	145.80 – 145.88 Same except delete permit requirements, require approval
Definitions	145.2	97.2 Add Commence, Construction, Electricity for sale under firm contract to the grid, Heat input rate, Percent monitor data availability, Potential electrical output capacity	145.2 Add 126 definitions, clarify Fossil fuel, Fossil fuel fired, NO _x budget administrator. Delete permitting definitions

The Proposed Regulation was published on March 6, 1999 (29 Pa. B. 1319) and is based on the final Section 110 rulemaking published in the Federal Register on October 27, 1998 (63 FR 57356) and the proposed Section 126 rulemaking published October 21, 1998 (63 FR 56292).

The Section 126 trading regulation was published as final on January 18, 2000 (65 FR 2674). The Section 126 Findings were published in the Federal Register on May 25, 1999 (64 FR 28250).

Notice of the Advance Notice of Final Rulemaking (ANFR) was published on January 22, 2000 in the Pennsylvania Bulletin (30 Pa. B. 399).